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Distr.
LIMITED

ST/ECA/SH/9
4 August 1981

Original: English

UNITED NATIONS

ECONOMIC AND SOCIAL COUNCIL

ECONOMIC COMMISSION FOR AFRICA
Seminar on Household Surveys
Addis Ababa, 21 - 30 September 1981

ECA/NAIROBI

RELATIONSHIP OF HOUSEHOLD SURVEYS WITH OTHER SOURCES OF DATA

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Introduction

1. With the launching of the African Household Survey Capability Programme (AHSCP) and its global variant, the National Household Survey Capability Programme (NHSCP), it is opportune to examine the relationship of household surveys with other sources of data not only from the point of view of organizational arrangements but also from the perspective of the types and scope of data which can be collected from all these sources. With this framework it is possible to consider the optimal allocation of resources to the various sources so as to enhance the nature and extent of the information collected. It is thus necessary for national statistical offices to view all sources of data in their entirety rather than focusing on only one of them.

2. The ECA Statistics Division, therefore, usually advocates the formulation of an over-all statistical development programme in which censuses, surveys and the use of administrative records for statistical purposes play their relevant roles. It is only after this over-all programme has been defined that the more detailed consideration of the constituent parts can be effectively tackled. Overemphasis of any of these parts to the detriment of any of the remainder may result in an unsatisfactory and unacceptable balance of statistical activities.

Main sources of statistical data

3. It is usual to distinguish the following sources of demographic, social, economic and environmental statistics: censuses, household surveys, other surveys and administrative records. However, the differences among these types are not always unambiguous. For example, an agricultural census is usually based on a sample approach and thus does not differ in its operational framework a great deal from an agricultural survey, although with the typology used by international organizations, the types of data collected in an agricultural census may be different from that collected in an agricultural survey (see annexes I and II for details of items for investigation in population and agricultural censuses).

4. In general the term "census" is used to cover complete enumeration of the relevant statistical units, although as explained above, an agricultural census does not necessarily imply an enumeration of all agricultural holdings. The types of censuses commonly conducted by national statistical offices are those involving population, housing, agriculture and industries. The periodicity is usually 10 years, although in a few countries a periodicity of five years is attempted.

5. Household surveys encompass a whole range of surveys in which the household is the unit of inquiry. As indicated in the document E/CN.14/SM/22 on household data requirements, household surveys can cover the following subject fields:

Demographic characteristics
Household income, consumption and expenditure
Labour force (employment, unemployment and underemployment)
Health, nutrition, housing, water supply, education, literacy and access to related services
Food consumption
Household enterprises (agriculture, handicrafts, trade, transport, etc.).

The above is only an illustrative list which can be amended in the light of priorities within each country.

6. The third source of statistical data has for convenience been classified as "other surveys". These surveys are those in which the unit of inquiry is not the household. Examples of other units which are frequently used are the holding and the establishment. Agricultural surveys may be examples in which the holding is the relevant statistical unit while manpower and industrial surveys are examples of establishment-wise surveys. In surveys on prices, the relevant unit is stopping the outlet.

7. Finally, the fourth main source of statistical data is the administrative record. Data already collected usually by organizations other than statistical agencies can be exploited by the statistical office to obtain statistical information. Organizations like the Ministry of Education, the Ministry of Health, customs and excise, income tax departments, social security administrations, registry of births and deaths collect information which can be exploited to obtain education and health statistics, external trade data, information on income distribution, usually from the formal sector, and vital statistics.

Types of data collected

8. Each data source performs a different function. A population census by its very nature will be restricted in the scope of questions than can be investigated while the population (or demographic) survey can be more flexible and extensive because it is based on a subset of the population. By using the more flexible approach of multi-phase sampling, topics requiring different levels of precision can be investigated in different phases of the survey. The World Fertility Survey with its rather extensive questionnaire is an illustration of the more detailed investigations possible in a survey.

9. In this context, therefore, censuses can be viewed as providing an instantaneous picture of the conditions being investigated at a given point in time. The household surveys as envisaged under AHSCP on the other hand, as continuing programmes not only update this information but provide an opportunity for much more detailed investigations than are possible in the census.

10. The United Nations draft Handbook of Household Surveys[1/] summarizes certain principles by which the household survey approach may be the preferred mechanism for meeting the requirements of the over-all statistical plan. These are:

"(a) When census information is out of date or in insufficient detail for planning or other purposes or does not cover the topics needed;

(b) When other continuous sources such as administrative records are incomplete or non-existent or are not conceptually compatible with the data requirements;

(c) When certain analytically important relationships (such as household and family relationships, determination of household income, etc.) must be explored, which are not normally revealed in other data systems, even when they exist;

(d) When the level of detail in geographical or subject-matter terms is such that statistically reliable information can be obtained using the sample size that can be funded and given available manpower and other necessary resources.

(e) When the subject-matter can reasonably be obtained from a household survey respondent."

11. Other surveys, using units other than the household, provide data complementary to those provided by the household survey. This distinction between the household survey and other surveys is best illustrated in the agricultural field. The following are the main types of data obtainable from agricultural surveys using the household as a unit of enumeration:

(a) Food consumption and nutrition.

(b) Disposal and utilization of produce.

(c) Storage at household level.

Agricultural data obtainable from statistical units other than the household (i.e. other surveys) are the following:

(a) Basic agricultural statistics usually obtained from agricultural censuses (see annex II);

(b) Current agricultural statistics (acreage, yield and production, etc.)

(c) Other agricultural information (farm management, fisheries, irrigation, forestry, prices at various levels and supply, storage and distribution systems).

It should however be noted that components of (a) and (c) (e.g. production and farm management) can be investigated through households. Thus it can be seen that, with data from only one source the picture of agricultural development and conditions is only partial. With information from the two sources, the picture is almost complete.

1/ United Nations Department of Technical Co-operation for Development and Statistical Office, Handbook of Household Surveys, part one, United Nations, New York.

12. The missing link in the picture given by censuses, household surveys and other surveys is provided by the administrative record. Not all data compiled in administrative records are required for statistical purposes. Annexes III and IV show information in respect of civil registration collected by Ghana on the statistical form and the legal record respectively. Some of the information such as names of father and mother together with their nationality is usually used for legal purposes. The statistician is more interested in the place and date of birth, age of mother, parity, etc. Some of this information is not required by the registration authorities. Thus in a number of countries two sets of forms have been evolved: one to satisfy the legal requirements and the other for statistical purposes.

13. It is not however always possible to persuade the administrative authority to use two sets of forms although the single form usually issued is limited in scope. In addition, since records are usually completed in respect of individuals, it is not possible to relate them to the characteristics of households or even household members, thus limiting their analytical usefulness. Another point worth noting is that in Africa even when these records exist, they are usually incomplete and seriously inaccurate, which renders their usefulness for statistical purposes rather limited. Equally, a number of countries in the region have had income tax records for a long period, but these records do not give an accurate indication of the distribution of income for the target group concerned. The same is true of civil registration records which in most African countries cannot be used to estimate vital rates, unless the administrative records are supplemented by a household survey with estimates of the type based on the Chandrasekeran-Deming formula being derived. The foregoing should not, however, be construed to imply that in this region administrative records are useless for statistical purposes. In the field of external trade they provide the only reliable source of information, although even in this area defects in the data relating to trade across land frontiers affect the quality of the information collected.

14. In spite of defects in data derived from administrative records prevalent in the system in Africa, an improvement in the methods of record-keeping could eliminate the need for some of the data now collected from other sources. For example with an efficient civil registration system similar to the one existing in Mauritius, some of the investigations on births and deaths carried out as part of household surveys could be dropped.

Programming of statistical activities

15. The need to formulate an over-all statistical strategy usually finds expression in the statistical development plan. Such plans, apart from considering statistical organization, manpower needs and the budgets have also to focus on priorities and the preparation of a programme of work. The preparation of this over-all programme is an essential function of the central statistical office.

16. In preparing the work programme, the national statistical office has to be realistic and include only elements which can be implemented within the specified period. It is in this context that the timing of surveys which form part of the country s household survey capability programme has to be examined. It is not clear from the national household survey programmes formulated so far whether national statistical offices have taken fully into account their other activities bearing in mind their limitations of funds and manpower. Ideally projects should be formulated in such a way as to show their relationship with other statistical activities clearly.

17. It is only when this is done that the national statistical office can make the initial optimal allocation of the resources available among the different statistical programmes. Changes in the allocation of these resources among programmes and activities will need to be made during the implementation period because the balance between activities changes over time and optimal arrangements may well be different at the various stages of statistical (and national) development. Without careful and comprehensive planning, the initial allocation and subsequent changes will not lead to the expected outputs from the work programme.

Data processing

18. One of the most serious bottlenecks encountered in the timely dissemination of information occurs in data processing. Irrespective of the source of data, delays in processing lead to usually unacceptable delays in publication. One reason for this is that in planning the statistical work programme not much care is taken to estimate its data processing requirements. Thus, it is not unusual to find out that data from the four sources discussed earlier create a backlog at the data processing stage. Realistic planning of the work programme should also include a realistic assessment of the data processing requirements.

19. Such an assessment should include the number and types of data processing personnel required for systems design and analysis, programming, data entry, data preparation, including editing, and maintenance of equipment. It should also cover equipment requirements, including the availability of at least one back-up system.

20. Since there will be competing claims on the data processing unit, it is important for a users' committee to be set up to co-ordinate the various claims on the computer and to set priorities. It is also important that those in charge of sectional statistical activities and those responsible for the computer work closely together. In all cases and especially for censuses and surveys, it is important for subject-matter specialists to take a keen interest in coding and editing specifications and in certain cases be able to use appropriate software packages.

21. Data processing affects only a small part of the competing claims of household surveys and other data sources on the available resources for national statistical development. However, as stated, unless data from all sources are processed on time, the ability of the statistical office to carry out its functions efficiently will be in doubt. It should also be noted that the use of computer print-outs to speed up the process of printing any form of statistical data goes a long way to cut down delays arising from type-setting.

Analysis of data

22. The question of the interlinking and analysis of survey data from different rounds of the national household survey programme was discussed at the Working Group on the Organization, Content and Methodology of Household Surveys convened in Addis Ababa from 29 June to 3 July 1981. See in this connexion background paper E/CN.14/SM/39 on survey data analysis and the report of the Working Group (E/CN.14/SM/42). The difficulties identified at the Working Group are magnified when attempts are made to interlink data from different sources and to analyse them. One prerequisite for such an operation is the standardization of concepts, definitions and classifications.

23. Care must also be taken in interpreting results since in many cases the target populations may be different. In a normal household survey only private households are studied; institutional households and group quarters are usually excluded. Thus in interlinking results from censuses and surveys care must be taken to ensure that the target populations are the same. If not, it is necessary to determine whether comparisons derived from the two different sources are meaningful. However it is sometimes necessary to aggregate data relating to different target populations in order to get a comprehensive picture. It is also necessary for the analysis to have a suitable conceptual framework in which to consider relationships.

24. Models have been used increasingly to interprete relationships. The Rachue 2/ model on demographic-economic interrelationship is an example of this type of approach. However, a note of caution is necessary. In fitting data from different sources to a model, it is necessary to ensure that these conform to the specifications of the model.

25. While on this subject of interlinking of results from different sources, it should be noted that in many countries an annual report, economic survey or survey of socio-economic conditions is published. This is a simple attempt to link data from different sources for the year under review to describe the performance of the economy. This annual review provides the opportunity for testing the use made of the different types of data generated from the different sources. Unfortunately, most of these reviews do not attempt an

2/ Rodgers, G., Popkins, M. and Very, R. Rachue Philippines. Population, employment and inequality. International Labour Office, Geneva. 1979.

in-depth analysis of socio-economic conditions and the various factors affecting them. As an example of the result of analysis of data from different sources therefore, they are rather defective.

Conclusion

26. In conclusion, the central authority responsible for the planning and implementation of statistical programmes should examine all sources of statistical data, establish priorities and allocate resources in accordance with these priorities. In the master plan of statistical activities, subjects such as the agricultural census and manpower survy which may fall outside the purview of the national statistical office should nevertheless be included in order to present a comprehensive picture of the over-all statistical activities planned for implementation within the country. In this context it may be useful to mention all censuses and surveys planned in household survey projects to obtain a composite picture of planned field activities. For most countries, the population census is indicated in the household survey programme. It is useful to extend this coverage also to agricultural and other censuses.

27. The need for an appropriate mechanism with the necessary structure, manpower, equipment, financial and other resources to implement the statistical programme has come obvious. It is also necessary to emphasize that the central authority, vested with the over-all supervision of statistical activities, should, before formulating or approving the statistical programme, review the type and scope of statistics available in each field, examine the data gaps and study the different approaches which can be used to fill gaps.

28. When there is more than one producer of statistics all the major producers of statistics should be represented on the user-producer committees which are now recommended for the co-ordination of national statistical activities. Collaboration at the international level will also help to improve the quality of statistical data produced.

29. Finally, it is desirable to incorporate the statistical programme encompassing all planned statistical activities in the national development plan so as to ensure careful monitoring and evaluation.

Recommended Topics for the 1980 Round of Population and Housing Censuses

A. Geographic characteristics

* Place where found at time of census
* Place of usual residence
* Place of birth
* Duration of residence
* Place of work
* Total population (D)
* Locality (D)
* Urban and rural (D)

B. Demographic and social characteristics

(i) FOR ALL PERSONS
* Age
* Sex
* Relationship to head of household
* Nationality
Ethnic group
* Survival of parents

(ii) FOR EVERY PERSON AGED 5 YEARS OR MORE
* School attendance
* Educational attainment

(iii) FOR EVERY PERSON AGED 10 YEARS OR MORE
* Literacy
Religion

(iv) FOR EVERY PERSON AGED 15 YEARS OR MORE
* Marital status
Form of marriage
Number of spouses
Age at marriage
Duration of marriage

(v) FOR EVERY WOMAN AGED.... YEARS OR MORE
* Number of children born alive
* Children living
Most recent live birth
* Births during last 12 months
* Deaths during last 12 months

(vi) FOR EACH HOUSEHOLD
Household size (D)
Household composition (D)
Births during last 12 months
Deaths during last 12 months

C. Economic characteristics

* Type of activity
* Occupation
Type of establishment
* Industry
* Employment status
Number of employed persons in household (D)

D. Community-level variables
Source of water supply
Availability of electricity
Availability of primary school
Distance from nearest hospital/clinic/health centre

E. Housing conditions

* Number of houses
* Type of housing unit
* Type of occupancy
* Material of wall
* Material of roof
* Source of water supply
* Source of light
* Source of fuel
* Type of toilet
* Number of rooms
* Bathing facilities

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* Working Group on African Recommendations for the 1980 Round of Censuses of Population and Housing, E/CN.14/CPH/47.

D Derived topics.

Proposed agricultural census items for the 1980 World Census of Agriculture 1/

1. Holding
   - *11 Location of the holding
   - *12 Total area of the holding
   - *13 Number of (non-contiguous) parcels of land constituting the holding
   - 14 Location and area of each of the (non-contiguous) parcels
   - *15 Tenure of land
     - *15.1 Area of the holding owned or held in ownerlike possession
     - *15.2 Area of the holding rented from others
       - 15.21 For an agreed amount of money and/or produce
       - 15.22 For a share of produce
       - 15.23 In exchange for services
       - 15.24 Under other rental arrangements n.e.s. 2/
     - *15.3 Area of the holding operated on a squatter basis
     - *15.4 Area of the holding operated under tribal or traditional communal forms of tenure
     - *15.5 Area of the holding operated under other forms of tenure n.e.s.

2. Holder
   - *21 Identification of the holder
   - *22 Legal status of the holder
     - *22.1 An individual or a household
     - *22.2 Two or more individuals of different households or two or more households
     - *22.3 Corporation
     - *22.4 Co-operative
     - *22.5 Collective
     - *22.6 Government
     - *22.7 Other, n.e.s. (e.g. religious institution, private school, tribe or clan)
   - *23 Name and address of the hired manager (if any)
   - *24 Name and address of the respondent and his relationship to the holder

3. Population and employment
   - *31 Demographic characteristics of each member of the holder's household (starting with the holder)
     - *31.1 Name
     - *31.2 Age
     - *31.3 Sex
     - *31.4 Relationship to holder
   - *32 Characteristics of the type of activity of members of the holder's household (including the holder) at or above a specified age
     - *32.1 For a recent week
       - *32.11 Mainly agricultural work on the holding
       - *32.12 Mainly work off the holding
       - *32.13 Not economically active
     - *32.2 For the agricultural year
       - *32.21 Engaged usually in agricultural work on the holding
         - *(a) Permanent
         - *(b) Occasional
       - *32.22 Usually working off the holding
       - *32.23 Not economically active

1/ Programme for the 1980 World Census of Agriculture FAO Statistics Series No.1 FAO, Rome, 1976.

2/ The abbreviation n.e.s. used throughout the Programme means "not elsewhere specified."

* Items which are considered essential for national and international purposes.

*33 Number of hired permanent agricultural workers on the holding other than members of the holder's household
33.1 Males
33.2 Females
*34 Indication of the utilization of hired occasional agricultural workers on the holding other than members of the holder's household
*34.1 Utilized
*34.2 Not utilized

4. Land use

*41 Arable land
*41.1 Area under temporary crops (excluding temporary meadows)
41.11 Area normally irrigated
41.12 Area normally not irrigated
*41.2 Area under temporary meadows for mowing or pasture
41.21 Area normally irrigated
41.22 Area normally not irrigated
*41.3 Area temporarily fallow
*41.4 Area under all other arable land n.e.s.
*42 Land under permanent crops
42.1 Area normally irrigated
42.2 Area normally not irrigated
*43 Land under permanent meadows and pastures
43.1 Area normally irrigated
43.2 Area normally not irrigated
*44 Area of wood or forest land
*45 Area of all other land n.e.s.

5. Crops

*51 Temporary crops
*51.1 Cereals harvested for grain
*51.11 Wheat
(a) Winter wheat
(i) Hard wheat (including durum and semihard wheat)
(ii) Soft wheat
(b) Spring wheat
(i) Hard wheat (including durum and semihard wheat)
(ii) Soft wheat
*51.12 Rice
(a) Wet land (lowland)
(b) Dry land (upland)
*51.13 Maize (corn)
(a) Hybrid maize
(b) Ordinary maize
*51.14 Barley
(a) Winter barley
(b) Spring barley
*51.15 Millet and sorghum
(a) Millet
(i) Finger millet (e.g., pearl millet, bulrush millet)
(ii) Other millet (e.g., bajra, Japanese millet)
(b) Sorghum (e.g., jowar, Guinea corn, durra)
*51.16 Oats
*51.17 Rye
(a) Winter rye
(b) Spring rye

51.18 Mixed cereals for grain (e.g., maslin)
51.19 Others n.e.s. (e.g., buckwheat, quinoa, spelt, teff)

*51.2 Tuber, root and bulb crops
*51.21 Potatoes
*51.22 Sweet potatoes
*51.23 Cassava (manioc, tapioca)
*51.24 Yams
51.25 Arrowroot
*51.26 Dry onions
51.27 Dry garlic
*51.28 Taros (cocoyams, dasheen, edoes, tannia)
51.29 Others n.e.s. (e.g., arracacha)

*51.3 Leguminous plants mainly for grain (excluding soybeans and groundnuts)
*51.31 Edible dry beans
51.32 Dry broad beans (horse beans)
*51.33 Edible dry peas
51.34 Chick-peas (gram)
51.35 Lentils
51.36 Cowpeas
51.37 Pigeon peas
51.38 Vetches
51.39 Others n.e.s. (e.g., lupines, fenugreek, bambarra nuts)

*51.4 Crops mainly for industrial purposes
*51.41 Sugar crops
*(a) Sugarcane
*(b) Sugar beets
(c) Others n.e.s. (e.g., sweet sorghum)
*51.42 Oilseed crops
*(a) Groundnuts (peanuts)
*(b) Soybeans
(c) Flax (linseed)
(d) Sunflower
(e) Rapeseed (colza)
(f) Mustard
(g) Sesame
(h) Cottonseed
(i) Safflower seed
(j) Castor beans
(k) Others n.e.s. (e.g., hempseed, poppy seed, niger seed)

51.43 Spices, condiments, aromatic and medicinal plants
(a) Dry peppers, pimentos or chillies
(b) Oil plants for essence (e.g., geranium, lavender, mint)
(c) Medicinal plants (e.g., opium, liquorice)
(d) Others n.e.s. (e.g., aniseed, caraway seed)

*51.44 Fibre crops
*(a) Cotton
(b) Flax for fibre
(c) Hemp for fibre
*(d) Jute
(e) Others n.e.s. (e.g., sunn hemp, kenaf, urena)

*51.45 Other industrial crops
*(a) Tobacco
(i) Flue-curred
(ii) Other types
(b) Chicory
(c) Pyrethrum
(d) Others n.e.s. (e.g., indigo, henna, broom millet, broom sorghum, esparto grass, sugarcane for thatching)

51.5 Vegetables mainly for human consumption
51.51 Leafy or stem vegetables
(a) Artichokes
(b) Asparagus
(c) Brussels sprouts
(d) Cabbage (red, white, savoy)
(e) Celery
(f) Chicory for greens
(g) Chinese cabbage
(h) Cress
(i) Endive
(j) Kale
(k) Leek
(l) Lettuce
(m) Rhubarb
(n) Spinach
(o) Others n.e.s. (e.g., cardoon, fennel, corn salad)

51.52 Fruit-bearing vegetables
- (a) Cantaloupes and other melons
- (b) Chillies (fresh)
- (c) Cucumbers
- (d) Eggplant
- (e) Gourds
- (f) Okra
- (g) Pumpkins
- (h) Squash
- (i) Sweet peppers
- (j) Tomatoes
- (k) Watermelons
- (l) Others n.e.s. (e.g., chayots)

51.53 Root, bulb and tuberous vegetables
- (a) Carrots
- (b) Green garlic
- (c) Green onions
- (d) Radishes
- (e) Red beets
- (f) Rutabagas or swedes and kohirabi
- (g) Turnips
- (h) Others n.e.s. (e.g., celeriac, horseradishes, parsnip, scorzonera, salsify)

51.54 Leguminous vegetables harvested green
- (a) Beans
- (b) Peas
- (c) Others n.e.s. (e.g., broad beans, cowpeas)

51.55 Other vegetables
- (a) Cauliflower and broccoli
- (b) Corn (sweet)
- (c) Others, n.e.s.

51.6 Special horticultural cultivation

51.61 Grown in the open
- (a) Flowers, bulbs and corms
- (b) Ornamental plants
- (c) Others n.e.s.

51.62 Cultivation under protective cover (e.g., glass, plastic)
- (a) Vegetables
- (b) Mushrooms
- (c) Flowers and ornamental plants
- (d) Others n.e.s.

51.7 Fodder crops (for grazing or cut for hay, green feed or silage)

51.71 Leguminous forage crops
- (a) Alfalfa
- (b) Clover
- (c) Others n.e.s. (e.g., lespedeza, sainfoin, soybean hay)

51.72 Grasses
- (a) Grown alone (e.g., timothy, red top, orchard grass, Sudan grass)
- (b) Mixed grasses

51.73 Cereals
- (a) Maize (corn) for silage
- (b) Oats
- (c) Others n.e.s.

51.74 Mixed legumes, grasses and cereals

51.75 Other fodder crops n.e.s.
- (a) Cabbage
- (b) Jerusalem artichokes
- (c) Pumpkins
- (d) Sunflower
- (e) Mangels (fodder beets)
- (f) Sugar beets
- (g) Sugarcane
- (h) Swedes
- (i) Turnips
- (j) Others n.e.s. (e.g., carrots)

51.8 Crops grown mainly for the production of seed
- 51.81 Seed of sugar beet
- 51.82 Alfalfa seed
- 51.83 Clover seed
- 51.84 Rye-grass seed
- 51.85 Onion seed
- 51.86 Others n.e.s. (e.g., trefoil)

51.9 Other temporary crops n.e.s.

52 Permanent crops
- *52.1 Fruit and nut trees
  - *52.11 Citrus fruits
    - *(a) Oranges
    - *(b) Mandarins and tangerines (including clementines and satsuma)
    - *(c) Lemons
    - (d) Grapefruits and pomeloes
    - (e) Sour limes
    - (f) Others n.e.s. (e.g., bitteroranges, sweet limes, citrons, bergamots)
  - *52.12 Pome fruits
    - *(a) Apples
    - (b) Pears
    - (c) Quince
    - (d) Medlars
    - (e) Others n.e.s. (e.g., Loquat)
  - 52.13 Stone fruits
    - (a) Apricots
    - (b) Cherries (including sour)
    - (c) Peaches
    - (d) Plums and prunes
    - (e) Other n.e.s. (e.g., nectarines)
  - *52.14 Grapes
    - (a) Grapes for wine
    - (b) Grapes for table use
    - (c) Grapes for raisins
  - 52.15 Small cultivated fruits
    - (a) Blueberries
    - (b) Cranberries
    - (c) Currants
    - (d) Gooseberries
    - (e) Raspberries
    - (f) Strawberries
    - (g) Others n.e.s. (e.g., blackberries)
  - *52.16 Other cultivated fruits
    - (a) Avocados
    - (b) Bananas
    - (c) Breadfruit
    - (d) Custard apple
    - *(e) Dates
    - (f) Figs
    - (g) Guavas
    - (h) Mangoes
    - (i) Papaws
    - (j) Persimmons
    - (k) Pineapples
    - *(l) Plantains
    - (m) Pomegranates
    - (n) Sapotes
    - (o) Others n.e.s. (eg., litchi, carob)
  - 52.17 Edible nuts
    - (a) Almonds
    - (b) Cashew nuts
    - (c) Walnuts
    - (d) Chestnuts
    - (e) Hazelnuts (filberts)
    - (f) Others n.e.s. (e.g., pecan, pistachio nut, Brazil nut, Macadamia (Queensland nut), but excluding coconut)
- *52.2 Permanent crops mainly for industrial purposes
  - 52.21 Beverage crops
    - *(a) Coffee
    - *(b) Cocoa (cacao)
    - *(c) Tea
    - (d) Hops
    - (e) Yerba maté
    - (f) Others n.e.s. (e.g., cola)
  - *52.22 Oil crops
    - *(a) Coconut
    - (b) Oil palm
    - *(c) Olive
    - (d) Others n.e.s. (e.g., tung trees, shea butter trees)
  - 52.23 Spices and aromatic crops
    - (a) Black pepper
    - (b) Cinnamon
    - (c) Cloves
    - (d) Ginger
    - (e) Nutmeg and mace
    - (f) Vanilla
    - (g) Cardamon
    - (h) Others n.e.s. (e.g., drumstick)

52.24 Fibre crops
(a) Abaca (Manilla hemp)
(b) Agave plants (e.g., sisal, henequen)
(c) Kapok
(d) New Zealand flax(formio)
(e) Ramie and rhea
(f) Others n.e.s. (e.g.,fiqué maguey)

52.25 Rubber and tanning crops
*(a) Rubber (hevea)
(b) Black wattle
(c) Quebracho
(d) Others n.e.s.

52.26 Flower crops
(a) Roses
(b) Jasmine
(c) Others n.e.s.

52.27 Other industrial crops
(a) Citronella
(b) Mulberry for silkworms
(c) Sago palm
(d) Palmyra palm
(e) Quinine
(f) Areca (betel) nuts
(g) Others n.e.s.(e.g.,lemon grass)

52.3 Nurseries
52.31 Nurseries of fruit trees, nut trees and vines
52.32 Nurseries of permanent industrial plants
52.33 Nurseries of flower trees, ornamental trees, and bushes

52.4 Other permanent crops n.e.s.

6. Livestock

*61 Livestock

*61.1 Cattle
*61.11 Calves under 1 year
61.12 Cattle, 1 year and under 2 years
(a) Males
(b) Females
*61.13 Cattle, 2 years and over
(a) Males
(i) Primarily for draught purposes
(ii) For other purposes
(b) Females
(i) Primarily for milk
(ii) Primarily for draught purposes
(iii) For other purposes

*61.2 Buffaloes
*61.21 Buffaloes, under 3 years
(a) Calves, under 1 year
(b) Buffaloes 1 year and under 3 years
(i) Males
(ii) Females
*61.22 Buffaloes, 3 years and over
(a) Males
(i) Primarily for draught purposes
(ii) For other purposes
(b) Females
(i) Primarily for milk
(ii) Primarily for draught purposes
(iii) For other purposes

*61.3 Sheep
*61.31 Lambs, under 1 year
*61.32 Sheep, 1 year and over
(a) Males
(b) Females

*61.4 Goats
*61.41 Goats, under 1 year
*61.42 Goats, 1 year and over
(a) Males
(b) Females

*61.5 Pigs
*61.51 Under 6 months
*61.52 6 months and over
(a) Females for breeding
(b) Others (including sows for fattening)

*61.6 Horses
61.61 Under 3 years
61.62 3 years and over
*61.7 Mules and hinnies
*61.8 Asses
*61.9 Camels
61.91 Under 4 years
61.92 4 years and over

*62 Poultry
- *62.1 Hens, cocks, pullets and chicks
  - 62.11 Cockerels pullets and chicks under 4 months
  - 62.12 Cocks, capons, hens and pullets, 4 months and over
    - (a) Laying hens
    - (b) Others n.e.s.
- 62.2 Ducks
- 62.3 Geese
- 62.4 Turkeys
- 62.5 Guinea fowls
- 62.6 Pigeons
- 62.7 Others n.e.s.

63 Beehives and bee colonies

64. Other domesticated animals n.e.s. (including those reared in captivity)
- 64.1 Rabbits and hares
- 64.2 Llamas and alpacas
- 64.3 Fur-bearing animals (reared in captivity for fur or skin)
  - 64.31 Foxes
  - 64.32 Minks
  - 64.33 Other fur-bearing animals n.e.s.
- 64.4 Others n.e.s. (e.g., reindeer, zebras, ostriches, elephants)

7. Machinery and equipment

*71 Stationary power-producing machinery
- *71.1 Prime movers
  - *71.11 Internal combustion engines
  - 71.12 Steam engines
  - 71.13 Windmills
  - 71.14 Others n.e.s. (e.g., water wheels)
- 71.2 Electric generators
- 71.3 Electric motors

*72 Agricultural machinery
- *72.1 Tractors
  - *72.11 Tracklaying (crawler) tractors
  - 72.12 Four-wheel tractors
  - 72.13 Power tillers and other single-axle tractors
- 72.2 Ploughs, tillers and harrows
  - 72.21 Ploughs
    - (a) Wooden
    - (b) Iron or steel ploughs operated by animals
    - (c) Tractor-operated ploughs
  - 72.22 Rotary tillers (tractor operated)
  - 72.23 Harrows (rotary or disc)
    - (a) Animal operated
    - (b) Tractor operated
- 72.3 Grain drills
  - 72.31 Hand operated
  - 72.32 Animal operated
  - 72.33 Tractor operated
- 72.4 Sprayers and dusters
  - 72.41 Hand operated
  - 72.42 Animal operated
  - 72.43 Engine operated
- *72.5 Reapers, mowers and binders
  - *72.51 Reapers
    - (a) Animal operated
    - (b) Tractor operated
  - *72.52 Mowers
    - (a) Animal operated
    - (b) Tractor operated
  - 72.53 Binders
- *72.6 Combines (harvesting and threshing)
  - 72.61 Tractor operated
  - 72.62 Self-propelled
- *72.7 Threshing equipment
  - *72.71 Hand operated
  - *72.72 Animal operated
  - *72.73 Engine operated
- *72.8 Milking machinery and equipment
  - *72.81 Milking machines (fixed or movable)
  - 72.82 Milk coolers
  - 72.83 Cream separators
- 72.9 Others n.e.s.

73 Transport equipment
- 73.1 Trucks
- 73.2 Cars jeeps and station wagons
- 73.3 Carts and wagons (animal drawn)
- 73.4 Wheelbarrows
- 73.5 Others n.e.s.

8. Selected practices and facilities

*81 Use of irrigation facilities on the holding
- *81.1 Tubewells or boreholes
- *81.2 Other wells with pumps or irrigation water wheels
  - *81.21 Hand operated
  - *81.22 Animal operated
  - *81.23 Engine operated
- *81.3 Solely by gravitational flow
- 81.4 Other irrigation facilities n.e.s.

*82 Integration of holding with an establishment in another industry
- *82.1 Holding is part of an establishment in another industry
  - 82.11 Part of a manufacturing establishment
  - 82.12 Part of a wholesale or retail trade establishment
  - 82.13 Part of an agricultural services establishment
  - 82.14 Part of an establishment in another industry
- *82.2 Holding is not part of another establishment

*83 Production on the holding under contract for another establishment
- *83.1 Part or all of production (specify products)
- *83.2 None

*84 Use of high-yielding crop varieties on the holding
- *84.1 Wheat
- *84.2 Rice
- *84.3 Others (specify crop)
- *84.4 None

85 Use and application of inorganic fertilizers and pesticides
- 85.1 Fertilizers
  - 85.11 Applied solely by holder
  - 85.12 Applied solely or partly by others
  - 85.13 No fertilizers used
- 85.2 Pesticides
  - 85.21 Applied solely by holder
  - 85.22 Applied solely or partly by others
  - 85.23 No pesticides used

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FORM A

PRESCRIBED PARTICULARS FOR BIRTH REPORT FORM

I. REGION III. REGISTRATION DISTRICT

V. SERIAL NUMBER IN REGISTER

II. ADMINISTRATIVE DISTRICT IV. REGISTRY/CENTRE

A. CHILD

1. Full name of child _____

2. Sex _____

3. Date of birth _____

4. Type of birth _____

5. (a) Place of birth _____ (b) Hospital _____

Non-hospital _____

6. Attendant at birth (a) Doctor; (b) Registered midwife; (c) Other _____ (Specify)

B. MOTHER

7. Full name of mother _____

8. (a) Nationality/citizenship _____ (b) Tribe _____

9. Age _____

10. (i) Number of children ever born alive (including this birth)

(a) Born alive and now living _____ (b) Born alive and dead _____

(ii) Parity or birth order _____

(iii) Still-born _____

11. Occupation _____

12. Level of formal education attained _____

13. Place and address of usual residence _____

C. FATHER

14. Full name of father _____

15. (a) Nationality/citizenship _____ (b) Tribe _____

16. _____

17. Occupation _____

18. Level of formal education attained _____

D. INFORMANT

19. (a) Name in full _____ (b) Relationship to child _____

I certify the above to be correct _____ Date _____
(Signature or mark)

E. REGISTRAR

Date of registration _____ Registrar's signature _____

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FORM C

REGISTER OF BIRTHS

REGISTRATION DISTRICT	REGION
AREA	ENTRY NO.

CHILD

1. Name in full (if any) — 2. Sex

3. Date and place of birth

FATHER

4. Name in full

5. Nationality

6. Occupation

MOTHER

7. Name in full

8. Maiden surname

9. Nationality

10. Occupation

INFORMANT

11. Name in full (if not mother or father) — 12. Relationship to child

13. I certify that particulars entered above are true to the best of my knowledge and belief.

_____ Signature of informant

14. Date of registration — 15. Signature of registrar

16. Name registered after registration or change of name *

* A name given to a child (whether in baptism or otherwise) before the expiration of twelve months from the date of the registration of its birth or a change of name of the child within twelve months of the registration may be inserted in space 16 of the birth entry in accordance with the procedure prescribed by section 10 of the Registration of Births and Deaths Act, 1965 (Act 301).